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PATENT ABSTRACTS OF JAPAN

(11)Publication number : **10-237444**
(43)Date of publication of application : **08.09.1998**

(51)Int.CI. **C09K 15/02**
B05D 7/14
C09K 3/00
C09K 15/20
C23F 11/14
C23F 11/18

(21)Application number : **09-058635**
(22)Date of filing : **27.02.1997**

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(54) METAL RUST PREVENTIVE

(57)Abstract:
PROBLEM TO BE SOLVED: To obtain a two-component rust preventive which retains its rust prevention effects for a long term even in a high-temp. high-humidity environment by causing a mixture comprising a thermoplastic resin and a nitrite to coexist with a mixture comprising a thermoplastic resin and an ammonia- or amine-based rust inhibitor.
SOLUTION: A mixture (A) comprising at least one thermoplastic resin (e.g. a polyolefin resin, a copolymer resin such as an ethylene-vinyl acetate copolymer, a polyester resin, a polyamide resin, a copolymer rubber, or wax) and at least 0.1wt.% at least one nitrite is caused to coexist with a mixture (B) comprising at least one thermoplastic resin mentioned above and at least 0.1wt.% at least one ammonia- or amine-based rust inhibitor (e.g. ammonia benzoate, ammonium stearate, dicyclohexylamine phosphate, or benzotriazole).

LEGAL STATUS

[Date of request for examination] 08.09.2000
[Date of sending the examiner's decision of rejection]
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]
[Date of final disposal for application]
[Patent number]
[Date of registration]
[Number of appeal against examiner's decision of rejection]
[Date of requesting appeal against examiner's decision of rejection]
[Date of extinction of right]

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CLAIMS

[Claim(s)]
[Claim 1] The two-component system metal rusr-proofer characterized by making following [A] and [B] live together.
[A]; they are at least one or more sorts of a potassium nitrite, a sodium nitrite, nitrous-acid calcium, nitrous-acid magnesium, a dicyclohexyl ammonium nitrite, or a diisopropyl ammonium nitrite to at least one or more kinds of thermoplastics which consists of copolymer resin, such as polyolefine system resins, such as polyethylene and polypropylene, ethylene and vinyl acetate, and an acrylic ester, a polyester system resin, a polyamide system resin, an ionomer resin, a rubber system resin, or a wax 0.1 Mixture made to contain more than weight %.
[B]; As opposed to at least one or more sorts of thermoplastics which consists of the thermoplastics shown above [A] An ammonium benzoate, phthalic-acid ammonium, an ammonium stearate, PAL thymine acid ammonium, oleic acid ammonium, an ammonium carbonate, Dicyclohexylamine phosphate, a dicyclohexylamine benzoate, A urea, an urotropin, thiourea, a carbamic-acid phenyl, a benzotriazol, 4-methyl benzotriazol, 5-methyl benzotriazol, 5-nitrobenzo triazole, or 3-methyl -5 - They are at least one or more sorts of a pyrazolone 0.1 Mixture made to contain more than weight %.
[Claim 2] The two-component system rusr-proofer of the claim 1 characterized by making mixture [A] and mixture [B] live together by making the surface of mixture [B] carry out distributed covering of the water-soluble liquid which dissolved at least one or more sorts of the nitrite in mixture [A] in water.
[Claim 3] The two-component system rusr-proofer of a claim 1 with which the coexistence rate of mixture [A] and mixture [B] is characterized by being the range of 1:6-6:1 in a weight ratio.
[Claim 4] The amount of steam transparency 2-24 or more hr(s) of 200 g/m, gar rhe formula air permeability Metal rusr-proofer characterized by containing a claim 1 or any one two-component system rusr-proofer of 3 in the small bag of the aeration and the moisture permeability film which consists of 5,000 seconds / 100 cc or less, or a cell.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[The technical field to which invention belongs] Even if this invention packs metal goods under the ill condition in which the rust in heat-and-high-humidity areas, such as a tropical area and a subtropical zone, tends to generate metal goods, it relates to the metal rusr-proofer of the two-component system for storage of the various metal goods which do not have generating of rust for a long period of time.
[0002]
[Description of the Prior Art] If it will turn to the local production of not only Japan but an overseas by the time it carries out fabricating of the steel primary product conventionally, it is sent to a spot through long days and a transportation path. Parts are especially supplied to every country in the world from Japan on an automobile-industry community, and the system which performs assembly production at a spot is performed briskly. Especially at the time of transportation in tropical rain woodland regions, such as Southeast Asia, and storage of a product, since an environmental change was large, dew condensation caused rust being easy to happen to a surface of metal. Thus, since rust arises from a reaction with dew condensation water, oxygen, and a metal conventionally, product value will be spoiled, and serious damage will be suffered. In order to avoid these damage, the measures protected from rust by applying a slushing oil to a metal-goods front face in large quantities directly have been taken from the combination of "a slushing oil and a packing material." However, if the rust prevention by the slushing oil cannot necessarily be called effective means but describes autoparts, it is carrying out washing removal of the slushing oil in the head end process at the time of paint of sheet metal press articles, such as a ceiling shell plate and a door panel. Not only soiling a work environment by the unpleasant smell or **** but waste-water-treatment cost was high in the degreaser solution used by the head end process, and its handling was inconvenient to it. It is the rustproof film (JP,47-4295,B, JP,53-2449,B) which scoured the vapor phase corrosion inhibitor on the combination of "the rustproof paper and the packing material" into which kraft paper was infiltrated typically, and the resin film, and fabricated it on them although development of a vapor phase corrosion inhibitor had been performed in order to lose these problems. They are other additives, such as a binder, about various vapor phase corrosion inhibitors to a film. Various plastic film obtained by coating (JP,58-24270,B) It is. However, when there was a limitation in the amount of the vapor phase corrosion inhibitor which can be contained in these packing materials, what has large space capacity was wrapped like large-sized metal goods and the area of the film which wraps a product was small to space capacity, since [in capacity] there are many moisture contents absolutely, the volatility rust-prevention component from a rustproof film is not only diluted, but a dew-condensation underwater rusr-proofer concentration value became small, and sufficient rustproof effect was not acquired.
[0003] Moreover, especially when only the system by which full seal of the use of a drying agent was carried out by the barrier property packing material with very high dampproofing is effective and packs large-sized metal goods, it becomes difficult, and the total cost of carrying out full seal from the problem of the fenestrate by the weight of a product or heat-sealing nature is also comparatively high-priced, and it is deficient in it also in economical efficiency. And the lost drying agent also had the case which causes rust conversely because of discharge of the absorbed moisture.
[0004]
[Problem(s) to be Solved by the Invention] the problem which is post-washing for contamination of the work environment from which this invention has become the technical problem which has not been solved by the Prior art, i.e., the fault of a slushing oil, or an oil chute -- Corresponding in a rustproof film or a drying agent solves the problem to corrosion preventive packaging of metal goods which has difficult big space capacity. moreover, storage environment, such as the bottom of heat-and-high-humidity environment, under severe conditions A rustproof effect is held over a long period of time, and let it be a technical problem to offer the metal rusr-proofer of the two-component system which does not spoil quality worth of metal goods by rust.
[0005]
[Means for Solving the Problem] this invention A high density polyethylene, a low density polyethylene, a straight chain-like low density polyethylene, Copolymer resin, such as polyolefine system resins, such as polypropylene, ethylene and vinyl acetate, and an acrylic ester, Two sorts of a polyester system resin, a polyamide system resin, an ionomer resin, butene-1, a pentene -1, and hexene-1 grade, or the copolymer rubber of three or more sorts of copolymer rubber, and the monomer of other type, As opposed to at least one or more kinds of thermoplastics which consists of ester system waxes, such as higher-fatty-acid ester higher-alcohol ester, ethylene, a vinyl acetate copolymerization system wax, animal-and-vegetable-oils fat, and a natural wax A

potassium nitrite, a sodium nitrite, nitrous-acid calcium, a dicyclohexyl ammonium nitrite, They are at least one or more kinds of a diisopropyl ammonium nitrite to thermoplastics 0.1 Mixture which made more than weight % contain [A], An ammonium benzoate, phthalic-acid ARUMMONIUMU, stearin acid ARUMMONIUMU, PAL thymine acid ammonium, oleic acid ammonium, an ammonium carbonate, Dicyclohexylamine phosphate, a dicyclohexylamine benzoate, A urea, an urotropin, thiourea, a carbamic-acid phenyl, a benzotriazol, They are at least one or more kinds of 4-methyl benzotriazol, 5-methyl benzotriazol, 5-nitrobenzo triazole, or a 3-methyl-5-pyrazolone to the above-mentioned thermoplastics 0.1 Melting kneading of the blend object made to contain above weight % is carried out. The above-mentioned problem was solved by making the seal space where rustproof required metal goods are contained live together in a proper configuration, without having carried out extrusion molding, having formed mixture [B] on the solid, and mixing two components of these mixture [A] and mixture [B].
[0006] Furthermore by this invention, the two-component system metal rusr-proofer which consists of mixture [A] and mixture [B] 2-24 or more hr(s) of amount of steam transparency 200 g/m, gar rhe formula air permeability If it contains separately to the waterproof small bag or waterproof cell of aeration and a moisture permeability film which consists of 5,000 seconds / 100 cc or less Since handling becomes easy, without a metal rusr-proofer scattering, scattering by the shock at the time of transportation can be prevented by keeping this to seal space with metal goods. And the packing material which has the waterproof function of the above-mentioned aeration and moisture permeability will separate the deliquescence liquid after moisture absorption of the two-component system rusr-proofer which consists of mixture [A] and mixture [B] from metal goods, storage was completed, without spoiling worth of metal goods, and the above-mentioned problem was solved.
[0007]
[Embodiments of the Invention] In the thermoplastics used by this invention, a high density polyethylene, a low density polyethylene, Polyolefine system resins, such as a straight chain-like low density polyethylene and polypropylene, Copolymer resin, such as ethylene and vinyl acetate, and an acrylic ester, a polyester system resin, Two sorts of the alpha olefin of a polyamide system resin, an ionomer resin, butene-1, a pentene -1, and hexene-1 grade, or the copolymer rubber of three or more sorts of copolymer rubber, and the monomer of other type, Waxes, such as higher-fatty-acid ester, higher-alcohol ester, ethylene and a vinyl acetate copolymerization system wax, paraffin wax, and a natural wax, are mentioned. As for mixture [A], in any case, thermoplastics is received. A potassium nitrite, Thermoplastics is received in at least one or more kinds of a sodium nitrite, nitrous-acid calcium, nitrous-acid magnesium, dicyclohexyl ammonium and a nitrite, or a diisopropyl ammonium nitrite. 0.1 % of the weight or more, 10 - 60 % of the weight is made to contain preferably. mix the powder of the above-mentioned nitrite with thermoplastics, or Make the front face of pellet-like thermoplastics distribute the fine particles of a nitrite, or make solvents, such as a methanol, carry out dissolution distribution of the above-mentioned nitrite, a solid-like thermoplastics surface is made to cover, and there are methods, such as obtaining mixture [A] by carrying out evaporation dryness of the part for a solvent. As how to mix the above-mentioned component, scouring by the Banbury mixer, the roll-mill kneader, the single screw extruder, the twin screw extruder, etc. is mentioned. The above-mentioned mixture [A] In order to take a large touch area with the air in the system by which metal goods were packed, it is desirable to adjust to the overall diameter of 30mm or less.
[0008] Moreover, [B] An ammonium benzoate, phthalic-acid ammonium, an ammonium stearate, PAL thymine acid ammonium, oleic acid ammonium, an ammonium carbonate, Dicyclohexylamine phosphate, a dicyclohexylamine benzoate, A urea, an urotropin, thiourea, a carbamic-acid phenyl, a benzotriazol, The blend object which made at least one or more kinds of 4-methyl benzotriazol, 5-methyl benzotriazol, 5-nitrobenzo triazole, or a 3-methyl-5-pyrazolone contain ten to 50% of the weight preferably 0.1% of the weight or more to thermoplastics is prepared. It is processed on the method of pelletizing the mixture which carried out heating fusion by the kneading means proper to the pellet of thermoplastics, powder, etc., for example, a Banbury mixer, the roll-mill kneader, the single screw extruder, the twin screw extruder, etc. as a method of fabricating this blend object in the shape of a solid, scoured, and was extruded by the pelletizer, and a sheet, and there is the method of judging etc. Although it is in the inclination which carries out evaporation disappearance in case a blend object will be fabricated on a solid to the evaporation disappearance temperature of a rustproof additive, if the melting point of thermoplastics is high since it is the thing of ammonia or an amine system, and it is easy to carry out evaporation disappearance of the vapor pressure highly, the rustproof additive which uses all with mixture [B] can be used satisfactory, if the melting point of thermoplastics is generally below abbreviation 120 **. When mixture [A] and mixture [B] were mixed by both fine particles, it found out that carried out early disappearance and an effect was halved. For this reason, in order to make small the touch area at the time of the air under atmosphere, as for [B], it is desirable to adjust on the solid of 1mm or more of diameters of the minimum.
[0009] Within the sealing system by which metal goods were packed, since a nitrite with the large moisture absorption operation in one mixture [A] of mixture [A] and [B] begins to absorb moisture previously and deliquesces near 75% RH of relative humidity, a moisture content decreases and a dew condensation phenomenon stops being able to occur easily. Moreover, pile environment is made to form in rust that it is high in the nitrite concentration in mixture [A], and it becomes possible to decrease the moisture content in the sealing system by which metal goods were packed further by making [many] a total amount, and a dew condensation phenomenon cannot occur easily. Next, it deliquesces, and the rusr-proofer in the mixture [A] which changed to the liquid state permeates the mixture [B] fabricated in the shape of a solid, and will be in the state of being easy to react mutually. Since the rustproof additive of mixture [B] is the thing of ammonia or an amine system and it is easy to carry out evaporation disappearance of the vapor pressure highly, the mixture [A] and contact which mixture [B] deliquesced and were liquefied are attained. Therefore, it is not necessary to make mixture [A] and mixture [B] intermingled so that it may not necessarily adjoin, the mixture [A] and the mixture [B] of a suitable configuration are made to live together in a sealing system by the suitable ratio, and it becomes possible to prevent the rust of the transportation and the storage time of metal goods over a long period of time by containing to the small bag with which the mixture [A] which mixture [B] deliquesced and liquefied, and

contact are attained, and an Moreover, mixture [A] and mixture [B] can also be made to live together in a sealing system by making the surface of mixture [B] carry out distributed covering of the water-soluble liquid which dissolved mixture [A] in water.

[0010] Moreover, although the concentration of the medicine which mixture [A] and [B] are made to contain can attain the purpose enough at 0.1 % of the weight or more, in order that especially [A] may not change to a liquid state that the concentration of the rusr-proofer made to contain in thermoplastics is 0.1 or less % of the weight, contact into mixture [B] becomes difficult. On the other hand, if the concentration of the rustproof additive which makes mixture [B] contain becomes 80% or more, solid-like fabrication will become difficult. Moreover, the coexistence rate of mixture [A] and mixture [B] is mixture [A]. : The rustproof purpose can be preferably attained by 1:2-2:1 that mixture [B] should just be within the limits of 1:6-6:1 in a weight ratio. In this invention, the metal goods which consist of a metal of other type can be protected from rust by using the rustproof compound with which kinds differ, respectively for mixture [A] and mixture [B]. for example, as a nitrite which mixture [A] is made to mix, the rustproof effect used the high dicyclohexyl ammonium and nitrite to iron, and when the rustproof effect as opposed to a nonferrous metal for the rustproof additive which scours and is crowded into mixture [B] selected a high benzotriazol, it was checked that an effect is demonstrated by not only steel but rust proofing of compound metal goods with aluminum In the adding-water decomposition reaction within the packed system which happens in the combination of the medicine contained especially into mixture [A] and mixture [B], like the mixed stock of a sodium nitrite and an urotropin, since reactant gas, such as an ammonium nitrite effective in a rustproof effect, is generated, a multiplication-effect is demonstrated by rust prevention of iron.

[0011] moreover, in case the metal rusr-proofer of the two-component system which consists of these mixture [A] and mixture [B] is used The amount (JIS Z 0208) value of steam transparency consists of 2-24 or more hr(s) of 200 g/m. By containing in the small bag of the aeration and the moisture permeability film with which a gar rhe formula air permeability (JIS P 8117) value consists of 5,000 seconds / 100 cc or less, or a cell Even if it was the case where the rusr-proofer itself influenced by the evaporation disappearance speed of the rustproof additive influenced by environmental temperature and environmental humidity had hygroscopicity, rust prevention of metal goods was attained.

[0012] Next, the rustproof examining method performed by this invention using the metal rusr-proofer of examples 1-4 and the mixture of the examples 1-5 of comparison is explained.

[0013] [Rustproof test method] Four kinds of test pieces (Table 1) are first hung in the 100x150x100cm basket which has large capacity, and the metal rusr-proofer of the above-mentioned examples 1-4 and the mixture of the examples 1-5 of comparison are placed in the center of a basket, respectively. These baskets are put into 100-micrometer polyethylene film bag, are heat sealed, and are sealed, and it is under a test condition. (b) It was left. The environment where a test-report side tends to dew is built with repeating the temperature and humidity of a test condition, and it is a long period of time. (for 60 days) It is an error-criterion (b) about the difference in an effect which can be set. It followed and evaluated. In addition, the test piece shown in Table 1 was used after washing and air-drying in solvent naphtha.

[0014] (b) Test atmosphere ** 25 degree C, 70%RH : 4-hour 50 degrees C, 95%RH : 4-hour setting transit time : 2 hours, a total of 12 hours / one cycle. [0015]

[Table 1]

試　験　片	サイズ(mm)
鋳　鉄　(JIS G 5501)	φ30×8
鋼　板　(JIS G 3141)	1.2×30×50
アルミニウム板　(JIS H 4000)	1.2×30×50
溶融亜鉛メッキ鋼板 (JIS H 8610)	1.4×30×50

[0016] (b) error-criterion O: -- with rust and no discoloration -- O:spotted rust and a slight area of a discoloration generating **:test piece -- receiving -- less than 10% -- the area of rust or a discoloration generating x:test piece -- receiving -- less than 10 - 50% -- the area of rust or a discoloration generating xx:test piece -- receiving -- 50% or more -- rust or discoloration generating [0017]

[Example 1] Low-density-polyethylene powder (Sumitomo Seika Chemicals company make) It receives, sodium-nitrite powder is mixed 28% of the weight, and it considers as mixture [A]. Moreover, low-density-polyethylene powder (Sumitomo Chemical Co., Ltd. make F218 -1, density 0.919) It received, 10 % of the weight of urotropins was mixed, and melting kneading was carried out by 135 ** in the twin screw extruder, and it fabricated with an after [cooling] diameter [of 5mm], and a length of 10mm in the shape of a solid, and considered as mixture [B]. the compounding ratio of the two-component system metal rusr-proofer which consists of mixture [A] and mixture [B] -- a weight ratio -- mixture [A]: -- it was referred to as [Mixture B] =2:3, 5g of total amounts was put into the petri dish, and it used for the rustproof examination The result of this evaluation examination is shown in Table 2.

[0018]

[Example 2] To ethylene and a vinyl acetate copolymer pellet (Sumitomo Chemical company make), a dicyclohexyl ammonium nitrite is mixed 20% of the weight, and it is mixture [A]. It carries out. Moreover, to polyethylene wax powder (the Hoechst A.G. make, PF520), 5 % of the weight of benzotriazols was mixed, and melting kneading was carried out by 105 ** in the twin screw extruder, and it fabricated with an overall diameter [after cooling] of 5mm in the shape of a solid, and considered as mixture

[B]. the compounding ratio of the two-component system metal rusr-proofer which consists of mixture [A] and mixture [B] -- a weight ratio -- mixture [A]: -- [Mixture B] =3:2 -- carrying out -- 10g of total amounts It put into the petri dish and used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0019]

[Example 3] 10g of two-component system metal rusr-proofers which consist of an example 2 The amount (JIS Z 0208) value of steam transparency, 5000 g/m2 and 24hr, and gar rhe formula air permeability (JIS P 8117) value The aeration and moisture permeability film which consists of 500 seconds / 100 cc Co., Ltd. -- Tokuyama Bag (10x10cm) It contained inside and used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0020]

[Example 4] To low-density-polyethylene powder (Sumitomo Seika Chemicals company make), the powder of a sodium nitrite is mixed 50% of the weight, and it considers as powder mixture [A]. moreover, an ethylene-methyl acrylate copolymerization resin (RB4120 by Nippon Oil [Co., Ltd.] Co., Ltd., density 0.934) -- receiving -- 5 % of the weight of benzotriazols -- mixing -- a twin screw extruder -- 105 ** -- melting kneading -- carrying out -- the shape of a solid with an overall diameter [after cooling] of 25mm -- fabricating -- mixture [B] ** -- it carried out mixture [A] Mixture [B] from -- the compounding ratio of the two-component system metal rusr-proofer which changes -- mixture [A]: -- mixture [B] It is referred to as =2:3. 10g of total amounts The amount of steam transparency (JIS Z 0208) A value 5100 g/m2 and 24hr, Gar rhe formula air permeability (JIS P8117) The aeration and moisture permeability film with which a value consists of 50 seconds / 100 cc (Tokuyama) Small bag (10x10cm) It contained inside and used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0021]

[The example 1 of comparison] Only the mixture [B] used in the example 1 put 3g into the petri dish, and was used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0022]

[The example 2 of comparison] 1.2g of sodium-sulfite powder and 200mg (an example 1 and a trial dose pure part are the amount of said) of UROTOROPIKAN powder used in the example 1 were put into the petri dish, and it used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0023]

[The example 3 of comparison] [Mixture A] 2g of the two-component system metal rusr-proofer which consists of the mixture [A] used in the example 1 and mixture [B], and [Mixture B] 3g (weight ratio 1:2) were put into the separate petri dish, and it used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0024]

[The example 4 of comparison] In 10g of two-component system metal rusr-proofers which consist of an example 2, it is the amount of steam transparency (JIS Z 0208). A value is 3 g/m2 and 24hr, and gar rhe formula air permeability. (JIS P 8117) A value is 50,000. Small bag of the high-density-polyethylene film which consists of a second / 100 cc or more (10x10cm) It contained inside and used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0025]

[The example 5 of comparison] the mixture [A] and the mixture [B] compounding ratio which consist of an example 2 -- mixture [A]: -- [Mixture B] =5:100 It carries out. ** -- It is the amount of steam transparency (JIS Z 0208) similarly [5g of total amounts]. A value 5100 g/m2 and 24hr, Gar rhe formula air permeability (JIS P 8117) It contained in the small bag (10x10cm) of the aeration and the moisture permeability film (Tokuyama) with which a value consists of 50 seconds / 100 cc, and used for the rustproof examination. The result of this evaluation examination is shown in Table 2.

[0026] The test result of this evaluation is shown in Table 2.

[Table 2]

試 験 片 の 種 類

試験例		鋳 鉄	鋼 板	アルミニウム	溶融亜鉛メッキ鋼板
実施例	1	◎	◎	○	◎
	2	◎	◎	◎	◎
	3	○	◎	◎	◎
	4	○	◎	◎	◎
比較例	1	××	××	××	××
	2	△	△	××	××
	3	×	△	△	○
	4	××	×	××	××
	5	××	××	○	××

[0027] Generating of rust prolonged by making mixture [A] and mixture [B] live together under the condition from which dew condensation takes place can be prevented so that clearly [in Table 2], and corrosion preventive packaging of various metal goods becomes possible. Even if it contains the moldings of mixture [A] and mixture [B] in the small bag and cell of aeration

and a moisture permeability film, the rustproof effect made into the purpose is acquired.
[0028] As mentioned above, various design changes are possible for this invention which explained the example of this invention in full detail, without deviating from this invention which is not limited to the above-mentioned example and indicated by the claim.
[0029]
[Effect of the Invention] As mentioned above, the conventional problem to corrosion preventive packaging of metal goods is solved, moreover, storage environment, such as the bottom of heat-and-high-humidity environment, can hold a rustproof effect over a long period of time, and cannot spoil quality worth of metal goods by rust under severe conditions, and the easy metal rusr-proofer of handling can be obtained. Moreover, worth of metal goods is not spoiled by containing the metal rusr-proofer of the two-component system which is indicated by the small bag or cell of aeration and a moisture permeability film at a claim, coexisting with metal goods and keeping it.

[Translation done.]

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CORRECTION or AMENDMENT

[Official Gazette Type] Printing of amendment by the convention of 2 of Article 17 of patent law.
[Section partition] The 3rd partition of the 3rd section.
[Date of issue] July 24, Heisei 13 (2001. 7.24)

[Publication No.] JP,10-237444,A.
[Date of Publication] September 8, Heisei 10 (1998. 9.8)
[**** format] Open patent official report 10-2375.
[Filing Number] Japanese Patent Application No. 9-58635.
[The 7th edition of International Patent Classification]

C09K 15/02 .
B05D 7/14 .
C09K 3/00 110 .
15/20 .
C23F 11/14 .
11/18 .

[FI]

C09K 15/02 .
B05D 7/14 Z .
C09K 3/00 110 Z .
15/20 .
C23F 11/14 .
11/18 .

[Procedure revision]
[Filing Date] September 8, Heisei 12 (2000. 9.8)
[Procedure amendment 1]
[Document to be Amended] Specification.
[Item(s) to be Amended] Claim.
[Method of Amendment] Change.
[Proposed Amendment]
[Claim(s)]
[Claim 1] The two-component system metal rusr-proofer characterized by making following [A] and [B] live together.
[A]; they are at least one or more sorts of a potassium nitrite, a sodium nitrite, nitrous-acid calcium, nitrous-acid magnesium, a dicyclohexyl ammonium nitrite, or a diisopropyl ammonium nitrite to at least one or more kinds of thermoplastics which consists of copolymer resins, such as polyolefine system resins, such as polyethylene and polypropylene, ethylene and vinyl acetate, and an acrylic ester, a polyester system resin, a polyamide system resin, an ionomer resin, a rubber system resin, or a wax 0.1 Mixture made to contain more than weight %.
[B]; As opposed to at least one or more sorts of thermoplastics which consists of the thermoplastics shown above [A] An ammonium benzoate, phthalic-acid ammonium, an ammonium stearate, PAL thymine acid ammonium, oleic acid ammonium, an ammonium carbonate, Dicyclohexylamine phosphate, a dicyclohexylamine benzoate, A urea, an urotropin, thiourea, a carbamic-acid phenyl, a benzotriazol, 4-methyl benzotriazol, 5-methyl benzotriazol, 5-nitrobenzo triazole, or 3-methyl -5 - They are at least one or more sorts of a pyrazolone 0.1 Mixture made to contain more than weight %.
[Claim 2] The two-component system rusr-proofer of a claim 1 with which the coexistence rate of mixture [A] and mixture [B] is characterized by being the range of 1:6-6:1 in a weight ratio.
[Claim 3] The amount of steam transparency 2-24 or more hr(s) of 200 g/m, gar rhe formula air permeability Metal rusr-proofer characterized by containing a claim 1 or any one two-component system rusr-proofer of 2 in the small bag of the aeration and the

moisture permeability film which consists of 5,000 seconds / 100 cc or less, or a cell.
[Procedure amendment 2]
[Document to be Amended] Specification.
[Item(s) to be Amended] 0005.
[Method of Amendment] Change.
[Proposed Amendment]
[0005]
[Means for Solving the Problem] this invention A high density polyethylene, a low density polyethylene, a straight chain-like low density polyethylene, Copolymer resins, such as polyolefine system resins, such as polypropylene, ethylene and vinyl acetate, and an acrylic ester, Two sorts of a polyester system resin, a polyamide system resin, an ionomer resin, butene-1, a pentene -1, and hexene-1 grade, or the copolymer rubber of three or more sorts of copolymer rubber, and the monomer of other type, As opposed to at least one or more kinds of thermoplastics which consists of ester system waxes, such as higher-fatty-acid ester higher-alcohol ester, ethylene, a vinyl acetate copolymerization system wax, animal-and-vegetable-oils fat, and a natural wax A potassium nitrite, a sodium nitrite, nitrous-acid calcium, nitrous-acid magnesium, They are at least one or more kinds of a dicyclohexyl ammonium nitrite and a diisopropyl ammonium nitrite to thermoplastics 0.1 Mixture which made more than weight % contain [A], An ammonium benzoate, phthalic-acid ARUMMONIUMU, stearin acid ARUMMONIUMU, PAL thymine acid ammonium, oleic acid ammonium, an ammonium carbonate, Dicyclohexylamine phosphate, a dicyclohexylamine benzoate, A urea, an urotropin, thiourea, a carbamic-acid phenyl, a benzotriazol, They are at least one or more kinds of 4-methyl benzotriazol, 5-methyl benzotriazol, 5-nitrobenzo triazole, or a 3-methyl-5-pyrazolone to the above-mentioned thermoplastics 0.1 Melting kneading of the blend object made to contain above weight % is carried out. The above-mentioned problem was solved by making the seal space where rustproof required metal goods are contained live together in a proper configuration, without having carried out extrusion molding to the shape of a solid, having formed mixture [B], and mixing two components of these mixture [A] and mixture [B].
[Procedure amendment 3]
[Document to be Amended] Specification.
[Item(s) to be Amended] 0006.
[Method of Amendment] Change.
[Proposed Amendment]
[0006] Furthermore by this invention, the two-component system metal rusr-proofer which consists of mixture [A] and mixture [B] 2-24 or more hr(s) of amount of steam transparency 200 g/m, gar rhe formula air permeability If it contains separately to the waterproof small bag or waterproof cell of aeration and a moisture permeability film which consists of 5,000 seconds / 100 cc or less Since handling becomes easy, without a metal rusr-proofer scattering, scattering by the shock at the time of transportation can be prevented by keeping this to seal space with metal goods. And the packing material which has the above-mentioned aeration and moisture permeability, and a waterproof function will separate the deliquescence liquid after moisture absorption of the two-component system rusr-proofer which consists of mixture [A] and mixture [B] from metal goods, storage was completed, without spoiling worth of metal goods, and the above-mentioned problem was solved.
[Procedure amendment 4]
[Document to be Amended] Specification.
[Item(s) to be Amended] 0008.
[Method of Amendment] Change.
[Proposed Amendment]
[0008] Moreover, [B] An ammonium benzoate, phthalic-acid ammonium, an ammonium stearate, PAL thymine acid ammonium, oleic acid ammonium, an ammonium carbonate, Dicyclohexylamine phosphate, a dicyclohexylamine benzoate, A urea, an urotropin, thiourea, a carbamic-acid phenyl, a benzotriazol, The blend object which made at least one or more kinds of 4-methyl benzotriazol, 5-methyl benzotriazol, 5-nitrobenzo triazole, or a 3-methyl-5-pyrazolone contain ten to 50% of the weight preferably 0.1% of the weight or more to thermoplastics is prepared. It is processed the shape of a method and a sheet which pelletizes the mixture which carried out heating fusion by the kneading means proper to the pellet of thermoplastics, powder, etc., for example, a Banbury mixer, the roll-mill kneader, the single screw extruder, the twin screw extruder, etc. as a method of fabricating this blend object in the shape of a solid, scoured, and was extruded by the pelletizer, and there is the method of judging etc. Although it is in the inclination which carries out evaporation disappearance in case a blend object will be fabricated in the shape of a solid to the evaporation disappearance temperature of a rustproof additive, if the melting point of thermoplastics is high since it is the thing of ammonia or an amine system, and it is easy to carry out evaporation disappearance of the vapor pressure highly, the rustproof additive which uses all with mixture [B] can be used satisfactory, if the melting point of thermoplastics is generally below abbreviation 120 **. When mixture [A] and mixture [B] were mixed by both fine particles, it found out that carried out early disappearance and an effect was halved. For this reason, in order to make small a touch area with the air under atmosphere, as for [B], it is desirable to adjust in the shape of [of 1mm or more of diameters of the minimum] a solid.

[Translation done.]